

§ 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

*Amendments*

*In the Claims:*

Please substitute the following claims 1, 9 and 37 for pending claims 1, 9 and 37:

1. (Twice amended) A *Thermotoga maritima (Tma)* DNA polymerase which is modified at least two ways selected from the group consisting of:
- (a) a mutation in the 3'-5' exonuclease domain of said polymerase to reduce or eliminate the 3'→5' exonuclease activity of the polymerase;
  - (b) a mutation in the 5'-3' exonuclease domain of said polymerase to reduce or eliminate the 5'→3' exonuclease activity of the polymerase; and
  - (c) a mutation in the O-helix of said polymerase to reduce or eliminate discriminatory behavior against a dideoxynucleotide; wherein said mutation is selected from the group consisting of: a deletion, a single or double substitution, a point mutation, a frame shift mutation and an insertion.

9. (Once amended) The mutant *Tma* DNA polymerase as claimed in claim 1,

wherein the modifications are a Phe<sup>730</sup>→Tyr<sup>730</sup> substitution and an Asp<sup>323</sup>→Ala<sup>323</sup> substitution.

37. (Twice amended) An isolated DNA molecule encoding a *Thermotoga maritima* (*Tma*) DNA polymerase which is modified at least two ways selected from the group consisting of:

- (a) a mutation in the 3'-5' exonuclease domain to reduce or eliminate the 3'→5' exonuclease activity of the polymerase;
- (b) a mutation in the 5'-3' exonuclease domain to reduce or eliminate the 5'→3' exonuclease activity of the polymerase; and
- (c) a mutation in the O-helix to reduce or eliminate discriminatory behavior against a dideoxynucleotide;

wherein said mutation is selected from the group consisting of: a deletion, a single or double substitution, a point mutation, a frame shift mutation and an insertion.